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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,064	05/22/2007	Yi-Zoong Kim	54124-10100	1401
23337 7590 04/15/2009 HOLME ROBERTS & OWEN LLP 1700 LINCOLN STREET, SUITE 4100 DENVER, CO 80203			EXAMINER WILBUR, NICHOLAS A	
			ART UNIT 4127	PAPER NUMBER
			NOTIFICATION DATE 04/15/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO_Mail@hro.com

Office Action Summary	Application No. 10/596,064	Applicant(s) KIM, YI-ZOONG	
	Examiner NICHOLAS WILBUR	Art Unit 4127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05/26/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/26/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is a first office action on the merits. Claims 1-5, as per preliminary amendment, are currently pending and have been considered below.

Drawings

1. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 4127

Regarding claim 3, the limitation "arranged at regular heights" renders the claim indefinite because it is unclear what the applicant is referring to when using the word "regular," as this word can be interpreted to have many different meanings.

Regarding claim 5, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.

See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Clum et al. (US 5,389,266).

Regarding claim 1, Clum et al. disclose a cutoff device comprising a framed housing (20) opened at a lower end thereof (as shown in Figure 2), and supporting a cover (18) having a cutoff wall (26) being opened at a lower end thereof (as shown in Figure 2), and a flexible liquid bag (column 3, line 55-column 4, line 3) attached to the lower end of the cutoff wall (as shown in Figure 2).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clum et al. in view of Scales (US 3,967,458).

Regarding claim 2, Clum et al. disclose all the elements as mentioned in claim 1, but fails to disclose wherein the housing comprises an extensible or compressible telescopic column, and upper and lower support frames coupled to each of upper and lower ends of the telescopic column.

However, Scales discloses a housing of a marine apparatus (as shown in Figure 3) comprising a telescopic column (11) that is extensible or compressible (column 3, lines 7-16), an upper support frame (10) coupled to an upper end of the telescopic column (as shown in Figure 1), and a lower support frame (17) coupled to the lower end of the telescopic column (as shown in Figure 1).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the cutoff device of Clum et al. to include the telescopic housing of Scales in order to ensure that the cutoff device will be operable in a wide range of water depths (column 1, lines 51-53).

Regarding claim 3, Clum et al. disclose all the elements of claim 1, but fail to disclose wherein the outer surface of the cutoff wall is supported by horizontal support bars that are arranged at regular heights.

However, Scales discloses wherein an outer surface of a wall (13) is supported by a horizontal support bar (16) arranged at a regular height (as shown in Figure 1).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the cutoff device of Clum et al. to include the horizontal support bar of Scales in order to provide bracing between the vertical members and to provide lateral stability to the apparatus as a whole (column 4, lines 46-55).

It is noted that Scales teaches a single support bar, however, it would have been obvious to use multiple horizontal support bars as opposed to using one support bar because using more supports provides more stability to any structure since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. See MPEP 2144.04.

Art Unit: 4127

9. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clum et al. in view of Bloxson et al. (US 5,520,364).

Regarding claim 4, Clum et al. disclose all the elements of claim 1, but fail to disclose wherein the upper end liquid bag is fastened to the lower end of the cutoff wall by a zipper.

However, Bloxson et al. disclose a flexible weight bag (as shown in Figure 1) wherein the upper end of the bag has a clip used as a fastening means to connect it to the lower end of objects to be weighed down (as shown in Figure 3).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the cutoff device of Clum et al. to include the flexible weight bag of Bloxson et al. in order to be able to easily attach or detach the weight holding the device down depending upon whether the device is in use (see Abstract).

Simple substitution of one known element (a zipper) for another (fastening clip of Bloxson et al.) would achieve the predictable result of making the weighted bag easily detachable from the cutoff device.

Regarding claim 5, Clum et al. disclose all the elements of claim 1, but fail to disclose wherein the liquid bag contains liquid and a heavy substance added to the liquid.

However, Bloxson et al. disclose a flexible weight bag (as shown in Figure 1) that contains liquid and a heavy substance (column 2, lines 5-9).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the cutoff device of Clum et al. to include the liquid and heavy substance mixture within the weighted bag of Bloxson et al. in order to make the weighted bag heavier than a bag that contained just one of either a liquid or a heavy substance (column 2, lines 5-9).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kinghorn (US 4,867,608) for a flexible liquid bag used at the bottom of an underwater structure used to conform to the ocean floor.

Borns et al. (US 6,209,965) for a cutoff device used for dredging.

Zaiger (US 6,517,287) for a cutoff device used for dredging.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICHOLAS WILBUR whose telephone number is (571)270-5746. The examiner can normally be reached on Monday-Friday 7:30 AM- 5 PM Every Other Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynda Jasmin can be reached on (571)272-6782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 4127

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NICHOLAS WILBUR/
Examiner, Art Unit 4127

/Lynda Jasmin/

Supervisory Patent Examiner, Art Unit 4127